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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,572	12/23/1999	KENNETH A. JONES	59896/JPW/AD	7623

7590 05/25/2004

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EXAMINER
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MURPHY, JOSEPH F

ART UNIT	PAPER NUMBER
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1646

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/471,572

Applicant(s)

JONES ET AL.

Examiner

Joseph F Murphy

Art Unit

1646

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 February 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 2/17/2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 156-158 and 160-183.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

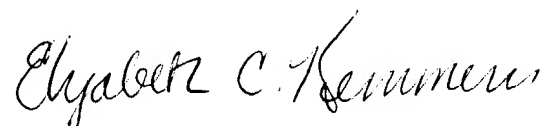
8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_



Continuation of 3. Applicant's reply has overcome the following rejection(s): The rejection of claim 159 under 35 USC 112 first paragraph as lacking written description; the rejection of claims 156-158, 160-176, 179-183 under 35 USC 112 second paragraph .

Continuation of 5. does NOT place the application in condition for allowance because: The reply filed 2/17/2004 does not overcome the rejection under 35 USC ' 112 first paragraph of claims 156-158, 160-183. Applicant argues that the specification provides written description for the invention as now claimed, that the specification conveys with reasonable clarity that applicants were in possession of an isolated nucleic acid encoding a chimeric G protein as now claimed. Applicant further argues that one skilled in the art, based on the disclosure, would readily recognize that the disclosure provides a representative number of species and describes the now claimed invention with all of its limitations, because the specification distinctly describes that the number of amino acids deleted can be from 5 to 21 contiguous amino acids, and that the number deleted must equal the number replaced, and that the specification identifies the sequences of many invertebrate G proteins. Applicants further argue that many invertebrate and vertebrate G protein-coding sequences were available through public gene databases at the time the application was filed.

However, the written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice, reduction to drawings, or by disclosure of relevant identifying characteristics, i.e. structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between structure and function structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus. Here, while Applicant has amended the claims to include several functions which the encoded chimeric G protein may possess, the genus claimed is highly variant and there is not a correlation between the structure of the claimed nucleic acids and the functions of the encoded polypeptides. Applicant has provided description of chimeras comprising invertebrate G aq from only two species, while the claims encompass nucleic acids encoding chimeric proteins comprising G aq proteins from 9 invertebrate species. The claims encompass potentially thousands of nucleic acids encoding invertebrate G aq chimeric subunits, and this genus is substantially broadened by the claims encompassing anywhere of from five to twenty five deletions and substitutions. Applicant has not provided a sufficient correlation between the structure of the encompassed nucleic acids encoding these chimeric G protein subunits and the function set forth for the encoded chimeric G proteins. Applicant further argues that based on the teachings in the Specification, one skilled in the art could construct primers derived from any of the disclosed invertebrate G protein sequences. However, The skilled artisan can not envision the detailed chemical structure of the encompassed nucleic acids encoding amino acid sequences and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that is part of the invention and reference to a potential method for isolating it, the sequence itself is required..



ELIZABETH KEMMERER  
PRIMARY EXAMINER